CMMI Level 2 for Practitioners: A Focused Course for Your Level 2 Efforts

Software Engineering Institute
Carnegie Mellon University
Pittsburgh, PA 15213

Mary Beth Chrissis
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Report Documentation Page

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About the presenter: Mary Beth Chrissis

Mary Beth Chrissis is a senior member of the technical staff at the Software Engineering Institute (SEI). Since joining the SEI in 1988, Chrissis has coauthored the Capability Maturity Model for Software (SW-CMM) and the Capability Maturity Model Integration® (CMMI ®) model.

Currently, Chrissis is a member of the CMMI v1.3 core development team, manages the CMMI training team, chairs the CMMI Configuration Control Board (CCB), is a member of the IEEE Software and Systems Engineering Standards Executive Committee, and is an instructor of various CMMI model-related courses at the SEI.

Prior to joining the SEI, Chrissis worked at GTE Government Systems in Rockville, MD developing a voice information processing system.

Polling question

Do you work for an organization that has already reached CMMI maturity level 2?

- Yes
- No

Today's topic: CMMI Level 2 for Practitioners

A new SEI course that prepares you for the challenges you'll face on your maturity level 2 journey

For more information

www.sei.cmu.edu/cmmi/level2

Agenda

Why a focused approach?

Meeting your level 2 needs: CMMI Level 2 for Practitioners

Sneak preview

Next steps

Questions

Why a focused approach?

Why a focused approach?

Introduction to CMMI provides an overview of the entire model; students receive a large amount of information quickly.

Intermediate Concepts of CMMI provides advanced information for SCAMPI Lead Appraisers and CMMI Instructors.

A focused approach serves the needs of the many practitioners who are working at or toward levels 2 and 3.

Because CMMI implementation happens step by step, a focus on the challenges at specific levels is a natural fit and can provide practitioners with the tools they need to effectively implement CMMI at levels 2 and 3.

Meeting your level 2 needs: CMMI Level 2 for Practitioners

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About CMMI Level 2 for Practitioners

CMMI Level 2 for Practitioners can improve your understanding of the CMMI for Development (CMMI-DEV), v1.2 model at Maturity Level 2. This course reviews some fundamental CMMI concepts and focuses on Generic Goal 2 (Institutionalize a Managed Process) and the following process areas:

- Requirements Management (REQM)

- Project Planning (PP)

- Project Monitoring and Control (PMC)

- Supplier Agreement Management (SAM)

- Configuration Management (CM)

- Process and Product Quality Assurance (PPQA)

- Measurement and Analysis (MA)

Who can benefit from the course?

The audience for CMMI Level 2 for Practitioners includes the following:

- anyone interested in learning more about CMMI

- SCAMPI team members

- practitioners and those responsible for improvement efforts who are trying to understand and implement CMMI

What you'll learn in CMMI Level 2 for Practitioners

At the end of the course, you will

- have a better understanding of CMMI Maturity Level 2

- be able to use CMMI Maturity Level 2 in an appraisal

- understand how to apply CMMI Level 2 concepts effectively

During the course, students will be able to share, learn, and exchange ideas with other course participants and the instructors.

What to expect in the CMMI Level 2 for Practitioners course

2.5 days

Interactive instruction - limited amount of lecture time mixed with questions that encourage participation

Small-group exercises

Real-world scenarios

Class schedule

Day 1

Module 1:
Course Introduction

Module 2:
Context for Maturity Level 2

Lunch

Exercise 1

Module 3:
Generic Goals and Practices

Module 4:
Product Development I

Day 2

Module 5:
Managing the Project
(PP)

Exercise 2

Module 5:
Managing the Project
(PMC)

Lunch

Module 5:
Managing the Project
(SAM)

Module 6: Supporting the
Project and Organization
(CM, PPQA)

Exercise 3

Day 3

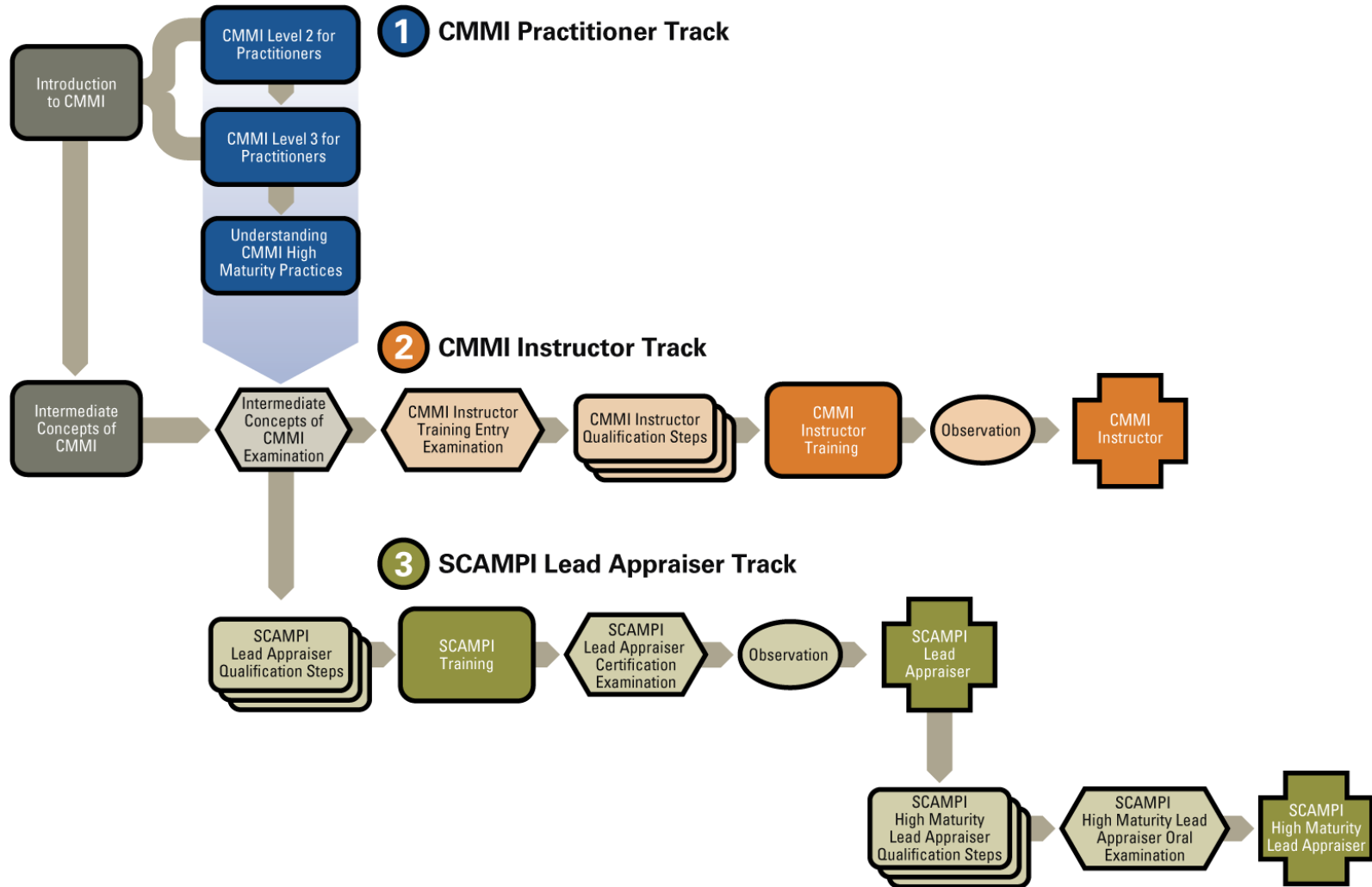Module 6: Supporting the
Project and Organization
(MA)

Exercise 4

Module 7: Process Area
to Generic Practice
Relationships

Module 8:
SCAMPI

Module 9:
Course Summary

CMMI training: The big picture

Polling questions

Do you understand how CMMI Level 2 for Practitioners fits with other CMMI training?

- Yes
- No

Do you understand how CMMI Level 2 for Practitioners can benefit you?

- Yes
- No

Sneak preview

Product Development I

Module 4

Format for discussing each process area (PA)

- What does this PA involve?

- Value

- Dependencies on other PAs

- Ordering of specific practices

- Selected specific practices

- Selected generic practices

- PA implementation considerations

Requirements Management Process Area

The purpose of Requirements Management (REQM) is to manage the requirements of the project's products and product components and to identify inconsistencies between those requirements and the project's plans and work products.

REQM involves…

Managing the requirements as the product evolves

- understanding requirements

- obtaining commitment to requirements

- recognizing and receiving requirements changes and making decisions about how to handle them

- ensuring customer requirements, project work, and products are consistent with product requirements

Value of REQM

Requirements management processes

- prevent inconsistencies between the approved requirements and the project's plans and work products

- assess which requirements, work products, and product components are affected by a proposed change

- ensure customer requirements, project work, and products are consistent with product requirements

REQM depends on…

Requirements Development

- for establishing and maintaining customer, product, product component, and interface requirements

Configuration Management

- for controlling changes to requirements

Project Monitoring and Control

- for taking action to correct identified inconsistencies among requirements, project plans, and work products

PAs that depend on REQM

Project Planning

- for managing requirements needed for planning and replanning

Supplier Agreement Management

- for managing the requirements that will be satisfied by external sources

- for managing the traceability of requirements for products acquired from suppliers
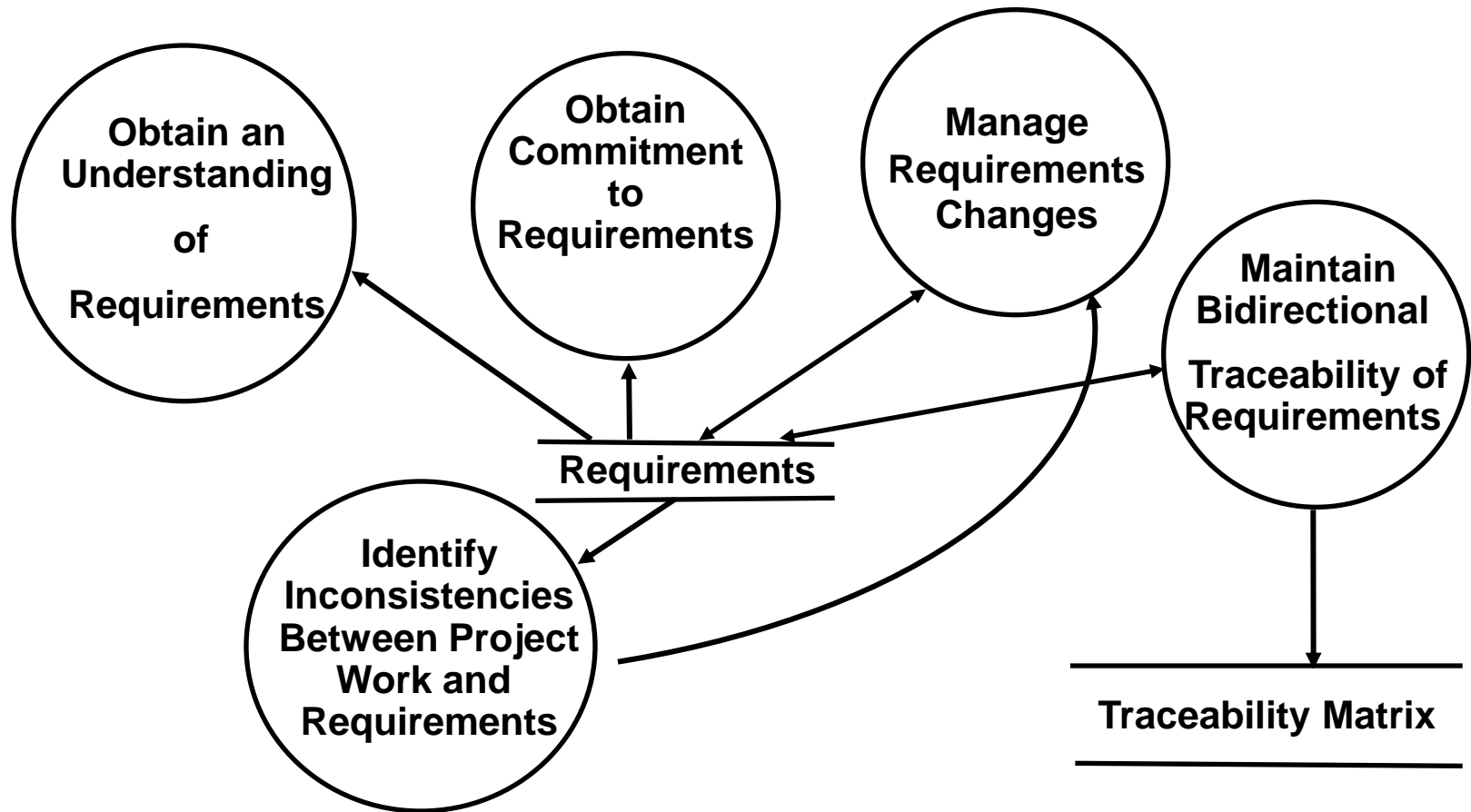
Requirements Development

- for managing customer, product, and product component requirements; obtaining agreement with the requirements provider; obtaining commitments from the requirements implementers; and maintaining traceability

REQM context

Manage Requirements

Polling questions

How do you feel about the information you're receiving in this webinar?

- Too technical
- Not technical enough
- Just Right

Is the information you're receiving relevant to your organization or job?

- Yes
- No
- Don't Know

SP 1.1 Understand Requirements

Develop an understanding with the requirements providers on the meaning of the requirements.

It is important to understand what the project is building.

- *subpractice 1:*
  Establish criteria for distinguishing appropriate requirements providers.

- *subpractice 4:*
  Reach an understanding of the requirements with the requirements provider so that the project participants can commit to them.

Typical work products

- lists of criteria for distinguishing appropriate requirements providers
- criteria for evaluation and acceptance of requirements
- results of analyses against criteria
- an agreed-to set of requirements

SP 1.2 Obtain Commitment to Requirements

Obtain commitment to the requirements from the project participants.

Project participants must commit to the approved requirements and the resulting changes to their project work.

- *subpractice 1:*
  Assess the impact of requirements on existing commitments.

Typical work products

- requirements impact assessments
- documented commitments to requirements and requirements changes

SP 1.3 Manage Requirements Changes

Manage changes to the requirements as they evolve during the project.

Requirements change! It is important to effectively manage these changes.

- *subpractice 1:*
  Document all requirements and requirements changes that are given to or generated by the project.

- *subpractice 3:*
  Evaluate the impact of requirements changes from the standpoint of relevant stakeholders.

Typical Work Products

- requirements status
- requirements database
- requirements decision database

SP 1.4 Maintain Bidirectional Traceability of Requirements

Maintain bidirectional traceability among the requirements and work products.

It is important to identify which work products are affected by a proposed change.

- *subpractice 2:*
  Maintain requirements traceability from a requirement to its derived requirements and allocation to functions, interfaces, objects, people, processes, and work products.

- *subpractice 3:*
  Generate the requirements traceability matrix.

Typical work products

- requirements traceability matrix
- requirements tracking system

SP 1.5 Identify Inconsistencies Between Project Work and Requirements

Identify inconsistencies between the project plans and work products and the requirements.

It is important to know when something is moving "out of synch" with the currently approved requirements.

- *subpractice 1:*
  Review the project's plans, activities, and work products for consistency with the requirements and the changes made to them.

- *subpractice 4:*
  Initiate corrective actions.

Typical work products

- documentation of inconsistencies including sources, conditions, and rationale
- corrective actions

REQM Implementation Considerations

Applying REQM to existing products and product components imposes limitations and requires interpretation regarding the following:

- how to document pre-existing requirements

- the amount of traceability needed

- how you address the requirements

The identification of relevant stakeholders may be limited by the type of organization and contract.

Does the size or duration of the project have an impact on the way you would implement Requirements Management?

Are there changes that cannot be accepted?

Next steps

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What's coming up?

<u>CMMI Level 2 for Practitioners</u>

SEI public courses available June 2009

Licensing available December 2009

<u>CMMI Level 3 for Practitioners</u>

Partner Pilots July 2009 – September 2009

SEI public courses available August 2009

Licensing available December 2009

SEI public courses:
CMMI Level 2 for Practitioners

June 23-25, 2009 (SEI Pittsburgh, PA)

July 27-29, 2009 (SEI Frankfurt, Germany)

September 28-30, 2009 (SEI Arlington, VA)

More information

Email   customer-relations@sei.cmu.edu

Phone   412-268-5800

Web   www.sei.cmu.edu/cmmi/level2

Questions